

Amendments to the Specification:

Please replace the heading immediately after pg. 1, line 20 with the following heading.

State of the art Background Art

Please replace the heading at pg. 2, line 25 with the following heading.

Object of the Invention Summary

Please replace the heading on pg. 4, line 19 with the following heading.

Description of particular embodiments Detailed Description of the Embodiments

Please replace the paragraph beginning on pg. 5, line 1 with the following paragraph.

To detect these impulses, each position sensor 2 uses the balance principle represented in figures 2 to 7. Each sensor 2 is formed by a rigid body 3 inside which a deformable element 4 is normally kept in equilibrium (figures 2 and 3) around a central point by means of a ~~support means~~ support means composed of two parts 5a and 5b that are symmetrical with respect to the deformable element 4 and fixedly secured to the rigid body 3. ~~One~~ 5b of the parts Part 5b of the support means is electrically connected to an electric power supply circuit delivering a DC voltage +Vdc. Conducting areas ~~6 are~~ 6a and 6b are arranged respectively on the rigid body 3 (areas 6b) and on the deformable element 4 (areas 6a). What is meant by deformable element is any flexible body of small thickness able to oscillate around its rest position, represented in figures 2 and 3, and reverting to its original position without having undergone any irreversible deformation. The deformable element 4 can in particular have the form of a disc, as shown in figure 8, or the form of a beam, as represented in figure 9. The conducting areas 6a of the deformable element 4 are electrically connected to the part 5b and can be situated for example on the circumference

and at the ends of the deformable element 4 as shown in figures 8 and 9. In the rest position of the deformable element 4, the conducting areas 6a of the deformable element 4 are isolated from the conducting areas 6b of the rigid body 3. The latter are placed inside the rigid body 3 and at predetermined locations so as to come into contact with the conducting areas 6a of the deformable element 4 selectively in the activation position of the sensor, as shown in figures 4 to 7.

Please replace the paragraph beginning on pg. 6, line 1 with the following paragraph.

In order not to be disturbed by the force of gravity G in the rest position, the element deformable deformable element 4 of a sensor 2 has to be sufficiently rigid not to bend under the effect of its own weight and not to come into contact with the rigid body 3 in the rest position. It is kept in equilibrium, in the rest position, for any movement the acceleration whereof remains at the most equal to the force of gravity G.

Please replace the paragraph beginning on pg. 6, line 8 with the following paragraph.

In a particular embodiment represented in figures 2 to 10, when a rotational or translational movement exceeds a certain threshold, the conducting areas 6a of the deformable element 4 come into contact for a short moment with certain conducting areas 6b of the rigid body 3, by unbalance or deformation. The conducting areas 6a arranged on the deformable element 4 thus briefly come into contact with certain conducting areas 6b of the rigid body 3. This brief contact is detectable by an electronic processing circuit 15 connected to all the conducting areas 6b of the sensors 2 (figure 10). Each sensor sends back four signals S0, S1, S2 and S3 each corresponding to a conducting area 6b. In the rest position of the deformable element 4 of a sensor 2, all the conducting areas 6b are isolated from the conducting areas 6a and supply binary signals S0 to S3 to the electronic

processing circuit 15, which signals take a first value, for example 0. When a conducting area 6b ~~come~~comes into contact with a conducting area 6a of the deformable element 4, it is then connected to the supply voltage +Vdc and supplies a corresponding signal having a second binary value (1 in the example considered). The electronic processing circuit 15 continuously analyses the signals S0 to S3 supplied by the different conducting areas 6b of the sensors 2 and deduces the type and the direction of movement therefrom. The correspondence between the possible movements of a sensor 2 and the associated signals S0 to S3 is represented in the following table:

Please replace the paragraph beginning on pg. 7, line 14 with the following paragraph.
For a downwards translation (figure 4) of a sensor according to figure 2, the deformable element 4 ~~come~~comes into contact with the rigid body 3 at the level of the conducting areas 6b opposite to the direction of movement. The signals S1 and S3 are at 1 and the signals S0 and S2 are at 0. The binary combination 0101 is thus obtained.

Please replace the paragraph beginning on pg. 9, line 3 with the following paragraph.

In the particular embodiment represented in figure 8, the deformable element 4 is a disc of small thickness in equilibrium around its central axis. The conducting areas 6a are arranged on the circumference, or periphery, of the two faces of the disc and are connected to the part 5b of the support ~~means~~5-means by radial conducting areas 6c to be supplied with electric power. In the alternative embodiment illustrated in figure 9, the deformable element 4 is a beam of small thickness in equilibrium around its transverse median axis. The conducting areas 6a are then arranged at the two ends of the beam, on both the top face and the bottom face, and are connected by conducting

longitudinal median areas 6d to the part 5b of the support means to be supplied with electric power.

Please replace the paragraph beginning on pg. 12, line 3 with the following paragraph.

The invention is not limited to the ~~embodiment~~embodiments described above. In particular, the three axes X, Y and Z may not be orthogonal.